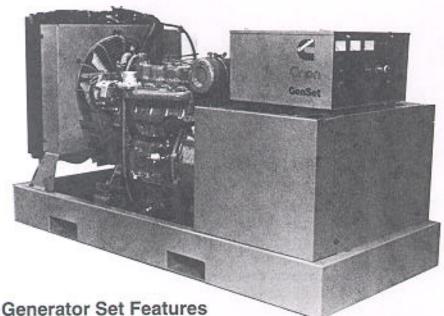




## 15 DKAC 60 Hz 12.5 DKAC 50 Hz

Diesel-Fueled Generator Set

5	STANDBY	PRIME
60 Hz	15.0 kW	13.5 kW
00112	18.8 kVA	16.9 kVA
50 Hz	12.5 kW	11.0 kW
00112	15.6 kVA	13.8 kVA



- Single-source design, manufacturing and testing of all set components and accessories by Onan Corporation.
- Accepts 100% of nameplate kW rating in one step, in compliance with NFPA 110, Paragraph 5-13.2.6.
- Engine torquematched excitation system provides quick recovery from transient speed dips.
- Low reactance generator design offers low waveform distortion with non-linear loads and provides excellent motor starting capabilities.

## Standard Equipment

#### ENGINE

Onan\* 4-cycle diesel engine.

#### ALTERNATOR

Brushless Onan AC alternator provides broad range reconnectible output.

#### CONTROL PANEL

Vibration isolated control with analog instrumentation.

#### VOLTAGE REGULATOR

Electronic voltage regulator utilizes asynchronous power transitor operation that provides immunity from SCR loads.

#### COOLING SYSTEM

High ambient 122° F (50° C) system.

#### SKID BASE

Supports the alternator and engine. Battery rack and cooling system mount to the skid base. Integral vibration isolation. Forklift pockets for handling.

## Generator Set Testing



The Prototype Test Support (PTS) program is our commitment to verifying the integrity of our designs and products.

Before the generator sets are put into production, prototype models are subjected to demanding tests with typical/atypical loads and transients anticipated in service.

Production models earn the PTS seal only after meeting the performance criteria established by the program.

## Single-Source Warranty

All generator set components and systems are covered by a limited one-year warranty. Optional two and five-year extended programs are available.



Standard Models are CSA certified.

#### Generator Set Performance

#### **Voltage Regulation**

Under load from no load to 100% load will be within  $\pm$  2%.

#### **Random Voltage Variation**

For constant loads, from no load to 100% load will not exceed ±1% of its mean value.

#### Frequency Regulation

Under varying loads from no load to 100% load: 5% (Isochronous with optional electronic governor).

#### **Random Frequency Variation**

Will not exceed  $\pm 0.5\%$  of its mean value for constant loads from no load to full load.

#### **Electromagnetic Interference Attenuation**

Meets requirements of most industrial and commercial applications.

#### AC Waveform Total Harmonic Distortion

Less than 5% total no load to full linear load, and less than 3% for any single harmonic

#### Telephone Influence Factor (TIF)

Less than 40 per NEMA MG1-22.43.

Telephone Harmonic Factor (THF) Less than 3.

#### **Alternator Temperature Rise**

At rated load is less than 125° C at standby rating, per NEMA MG1.22.40, IEEE115 and IEC 34–1.

#### Radio Interference

Meets requirements of most industrial and commercial applications.

#### Maximum Sound Level at 23 ft. (7m) full load:

60 Hz; 74 dBa

50 Hz; 73 dBa

## Engine: Onan\* D1703 3-cylinder, indirect injection diesel

Design: 4-cycle, water-cooled, natural aspiration.

Bore: 3.4" (87 mm) Stroke: 3.6" (93 mm).

Piston Displacement: 100 cubic inches (1.6 liters).

Valves: Two per cylinder, single springs.

Crankshaft: Forged steel, integral counterweight-type.
Connecting Rods: Forged steel with I-beam design.

Compression Ratio: 23:1.

Starting: 12-volt, negative ground.

Cranking Current: 350 amps at ambient temperature

of 32° F (0° C).

Battery Charging Alternator: 40-amp.

Cylinder Block: Cast iron.

**Fuel System:** Indirect injection, Number 2 diesel fuel; Fuel filters; Fuel/water separator; Automatic electric fuel shutoff; Distributor injection pump with integral mechanical governor.

**Air Cleaner:** Heavy duty with restriction indicator. **Lube Oil Capacity:** 7.4 US quarts (7.0 liters).

Lube Oil Required: API CD 10W-30. Lube Oil Filter: Single spin-on, full flow. Cooling System: High ambient 122° F (50° C)

radiator.

#### **Alternator: Onan**

#### Design:

Revolving field, single bearing, 4-pole, brushless, drip-proof construction. Standard 125° C temperature rise at standby power rating. Class H insulation system per NEMA MG1–1.65 and BS2757. The main alternator and exciter insulation systems are impregnated for operation in severe environments where sand, salt sea spray and chemical corrosion are installation factors.

#### Stator:

Skewed stator and 2/3 pitch windings minimize field heating and voltage harmonics.

#### Rotor:

Dynamically balanced assembly. Direct coupled to engine by a flexible drive disc. Complete amortisseur (damper) windings help minimize voltage deviations and heating effects under unbalanced loads. The rotor is supported by a pre-lubricated, maintenance-free ball bearing.

Phase Rotation: A (U), B (V), C (W)

Alternator Cooling: Direct drive centrifugal blower

#### **Torque-Matched Voltage Regulation:**

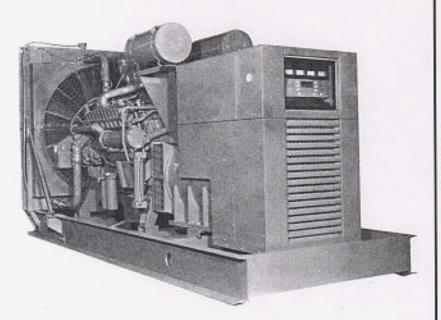
The voltage regulator provides torque-matched underfrequency compensation to optimize motor starting performance and assist the engine during transient load conditions. Asynchronous power transistor operation provides immunity from SCR tracking when applied to non-linear loads. The brushless exciter armature powers the main alternator field winding through shaft-mounted, three-phase, full wave silicon diode rectifiers.

#### Shunt Excitation:

The excitation system derives its power from the main output of the generator, eliminating the need for a separate excitation power source. This excitation system, combined with the Onan low reactance generator, comprise a system that provides sufficient short circuit current for selective clearing of instantaneous overcurrent devices.

<sup>\*</sup> Built for Onan to exacting standards of quality and performance.





# PowerCommand™ Diesel GenSet

600 DFGB 60 Hz 550 DFGB 50 Hz

STANDBY PRIME

600 kW 60 Hz

545 kW 750 kVA 681 kVA

550 kW 50 Hz 688 kVA

500 kW 625 kVA



The Prototype Test Support program verifies the performance integrity of the PowerCommand GenSet design. Onan products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level 1 systems.





The PowerCommand Control is listed UL-508 - Category NIWT7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

## Generator Set Features

#### CUMMINS HEAVY-DUTY ENGINE

Rugged 4-cycle industrial diesel engine for reliable power production and excellent transient performance.

#### ALTERNATOR

■ Low reactance, 2/3 pitch, Class H insulation, for superior motor starting, exceptional short circuit capability and minimizes voltage distortion when powering non-linear loads.

#### PERMANENT MAGNET GENERATOR (PMG)

 Reliable excitation power source to enhance motor starting, sustain short circuit current and isolate the excitation system from non-linear loads.

#### HIGH AMBIENT COOLING SYSTEM

Full rated output in ambient conditions up to 50° C (122° F).

#### FULL LOAD PICK-UP

All PowerCommand GenSets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110.

#### E-COAT FINISH

 Dual electro-deposition coating system provides high resistance to scratching, corrosion and paint fading.

## PowerCommand™ Control Features

#### INTEGRATED CONTROL SYSTEM

- A microprocessor-based genset monitoring, metering, and control system offers an advanced level of functions for reliability and optimum genset performance.
- An extensive array of standard control and digital display features that eliminate the need for discrete component devices such as a voltage regulator, governor and protective

#### ALARM AND STATUS MESSAGE DISPLAY

Provides detailed information on all critical parameters of the generator set.

#### AMPSENTRY™ PROTECTION

A power management system that guards the electrical integrity of the alternator and power system from the effects of overcurrent, over/under voltage, over/under frequency and overload conditions.

#### BATTERY MONITORING SYSTEM

■ The PowerCommand Control runs a battery load test every time the engine is required to start. It detects and sends an alarm for weak battery conditions and continually monitors the battery charging system for low and high voltage.

#### AC OUTPUT METERING

Combines true RMS digital metering and analog metering to provide accurate digital readout plus instant analog indication of trends and operating characteristics.

#### GENSET MONITORING

Monitors and digitally displays status of all engine and alternator functions critical to reliable generator set performance. Monitors and detects engine sender failures.

#### UL508 LISTED CONTROL PANEL

The single-membrane panel and gasketed enclosure protect the internal components from airborne contaminants. The control is RFI/EMI and successfully surge tested and certified.

#### SMART STARTING CONTROL SYSTEM

A multi-functional digital control system integrates fuel ramping and field excitation to minimize frequency and voltage overshoot and limit black smoke.

#### OPTIONAL POWERCOMMAND NETWORK COMMUNICATIONS

■ The PowerCommand Control can be equipped to communicate over an Onan® Echelon™ LonWorks™ communication network for local or remote monitoring and control of the entire on-site power system.

#### **Generator Set Performance**

#### Voltage Regulation

Under load from no load to 100% load will be within  $\pm$  0.5%.

#### Random Voltage Variation

For constant loads, from no load to 100% load will not exceed  $\pm 0.5\%$  of its mean value.

#### Frequency Regulation

Isochronous under varying loads from no load to 100% load.

#### **Random Frequency Variation**

Will not exceed  $\pm$  0.25% of its mean value for constant loads from no load to full load.

#### **Electromagnetic Interference Attenuation**

Meets requirements of most industrial and commercial applications.

#### **AC Waveform Total Harmonic Distortion**

Less than 5% total no load to full linear load, and less than 3% for any single harmonic.

#### Telephone Influence Factor (TIF)

Less than 50 per NEMA MG1-22.43.

#### Alternator Temperature Rise

At rated load is less than 105° C at prime power rating and less than 125° C at standby rating, per NEMA MG1.22.40, IEEE115 and IEC 34–1.

#### Radio Frequency Interference

Noise and Surge Immunity: Prototype test compliance verification of PowerCommand Generator Set to IEC 801.2, Level 4 for electrostatic discharge; IEC 801.3, Level 3 for radiated susceptability; IEC 801.4, Level 4 for electrically fast transients; IEC 801.5 Level 5 for voltage surge immunity; and MIL STD 461C, Part 9 for radiated emissions (EMI).

## Engine: Cummins VTA28-G5 V-12, direct injection diesel\*

Design: 4-cycle, water-cooled, turbocharged and aftercooled.

Bore: 5.5" (140 mm) Stroke: 6" (152 mm).

Piston Displacement: 1710 cubic inches (28 liters).

Valves: Four per cylinder, single springs.

**Crankshaft:** Forged steel, integral counterweight-type. **Connecting Rods:** Forged steel with I-beam design.

Compression Ratio: 13.1:1.

Starting: 24-volt, negative ground.

Cranking Current: 660 amps at ambient temperature

of 32° F (0° C).

Battery Charging Alternator: 45-amp.

**Cylinder Block:** Cast iron with replaceable wet liners

Fuel System: Direct injection, Number 2 diesel fuel; Fuel filters; Automatic electric fuel shutoff; Cummins PT fuel injection system with integral EFC govenor.

Air Cleaner: Dry-element with restriction indicator.

Lube Oil Capacity: 89 US quarts (84 liters).

Lube Oil Required: API CD 15W-40.

Cooling System: High ambient 122° F (50 ° C)

radiator.

\*The VTA28-G5 engine uses different hardware for 50 Hz and 60 Hz operation. Specify frequency at time of order.

#### **Alternator: Onan**

#### Design:

Revolving field, single bearing, 4-pole, brushless, drip-proof construction. Standard 125° C temperature rise at standby power rating. Class H insulation system per NEMA MG1–1.65 and BS2757. The main alternator and exciter insulation systems are impregnated for operation in severe environments where sand, salt sea spray and chemical corrosion are installation factors.

#### Stator:

Skewed stator and 2/3 pitch windings minimize field heating and voltage harmonics.

#### Rotor:

Dynamically balanced assembly. Direct coupled to engine by a flexible drive disc. Complete amortisseur (damper) windings help minimize voltage deviations and heating effects under unbalanced loads. The rotor is supported by a pre-lubricated, maintenance-free ball bearing.

#### Torque-Matched Voltage Regulation:

The voltage regulator provides torque-matched underfrequency compensation to optimize motor starting performance and assist the engine during transient load conditions. The brushless exciter armature powers the main alternator field winding through shaft-mounted, three-phase, full wave silicon diode rectifiers. Semi-conductor surge suppressors protect the diodes from transient overvoltages induced by load surges.

#### PMG (Permanent Magnet Generator):

Provides more power for motor starting. Sustains short circuit current at approximately 300% for not more than 10 seconds on either single- or three-phase faults. Isolates the excitation system from non-linear load distortion effects.

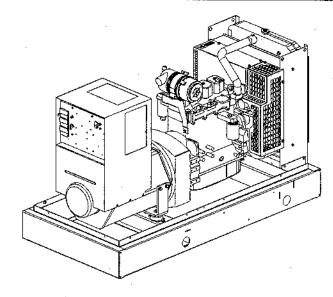
Phase Rotation: A (U), B (V), C (W)

Alternator Cooling: Direct drive centrifugal blower



35kW - 60kW 60 Hz 28kW - 50kW 50 Hz Diesel Fueled 4B Series

Model	Data Sheet	EPA-MOH	Stan kW (F		1	i <b>me</b> (kVA)
	<u> </u>		60 Hz	50 Hz	60 Hz	50 Hz
DGBB	D-3000	Standard	35 (44)	28 (35)	32 (40)	25 (31)
DGBC	D-3001	Standard	<b>40</b> (50)	<b>32</b> (40)	35 (44)	<b>29</b> (36)
DGCA	D-3002	Standard	<b>50</b> (63)	40 (50)	45 (56)	<b>36</b> (45)
DGCB	D-3003	Standard	<b>60</b> (75)	<b>50</b> (63)	<b>55</b> (69)	<b>45</b> (56)



# ISO 9001



The Prototype Test Support program verifies the performance integrity of the generator set design. Onan products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level 1 systems.





The PowerCommand Control is listed UL-508 - Category NITW7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

## **Standard Genset Features**

#### LOW EXHAUST EMISSIONS

 Certified to United States Environmental Protection Agency Mobile Off Highway standards

#### **CUMMINS® HEAVY-DUTY ENGINE**

- · Rugged 4-cycle industrial diesel engine
- · Excellent transient performance

#### **ALTERNATOR**

- Low reactance 2/3 pitch
- Class H insulation
- · Exceptional short circuit capability
- Low waveform distortion with non-linear loads
- · Excellent motor starting capabilities

#### **ELECTRONIC VOLTAGE REGULATOR**

- Precise regulation
- Underfrequency compensation
- Torque-matched system provides fast recovery from transient load changes

#### **FULL LOAD PICK-UP**

 Gensets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110, Paragraph 5-13.2.6.

#### **COOLING SYSTEM**

High ambient 122° F (50° C) system optional, 104°F (40°C) system standard

#### SKID BASE

Supports engine, alternator and radiator with integral vibration isolation

#### **E-COAT FINISH**

 Dual electro-deposition coating system provides high resistance to scratching, corrosion and paint fading

#### STANDARD CONTROL SYSTEM

- Run-Stop-Remote Switch
- Remote Starting, 12 Volt, 2 Wire
- Safety Shutdowns

#### **OPTIONAL CONTROL SYSTEMS**

- Detector 12 Control NFPA 110 Compliant
- PowerCommand Advanced Digital Control

#### SINGLE-SOURCE RESPONSIBILITY

 Design, manufacture and test of all major set components and accessories by Onan Corporation and affiliated companies.

#### SINGLE-SOURCE WARRANTY

- All generator set components and systems are covered by an express written limited one-year warranty
- Optional extended warranty programs available

Generator Set Specifications Voltage Regulation, no load to Full load: ±1.0% Random Voltage Variation: ±1.0% 5.0% Frequency Regulation: ±0.5% Random Frequency Variation: Optional PMG excitation operates in compliance with B\$800 and VDE level G and N. Radio Frequency Interference: Addition of RFI protection kit allows operation per MIL-STD- 461 and VDE level K **Engine Specifications** 4 cycle, water-cooled Design: Bore: 4.02"(102mm) Stroke 4.72"(120 mm) Displacement: 239 cubic inches (3.9 liters) Cast iron Cylinder Block: Cranking Current: 460 amps at ambient temperature of 32F (0°C) Battery Charging Alternator: 37 amps Starting Voltage: 12 volt, negative ground Direct injection, number 2 diesel fuel; fuel filter; water separator; automatic electric Fuel System: fuel shutoff, fuel & aircleaner Two stage dry element with restriction indicator Air Cleaner Type: Lube Oil Filter Type(s): Single spin-on, full flow 104°F (40°C) ambient radiator Cooling System: Alternator Specifications Brushless, 1800 RPM (60 Hz), 1500 RPM (50 Hz), 4 pole, drip proof revolving field Design: Stator: 2/3 pitch Direct coupled by flexible discs Rotor: Class H per NEMA MG1-1.65 Insulation System: 150° C Standby Temperature Rise: **Exciter Type:** Shunt A (U), B (V), C (W) Phase Rotation: Direct drive centrifugal blower Alternator Cooling: AC Waveform Total Harmonic Distortion: <5% total no load to full linear load <3% for any single harmonic Telephone Influence Factor(TIF): <50 per NEMA MG1-22.43. Telephone Harmonic Factor (THF): <3 Voltage Selections 50Hz, 1-Phase, 60Hz, 3-Phase, 50Hz, 3-Phase, 60Hz, 3-Phase, 60Hz, 1-Phase, Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable 230/400 100/200 120/208 120/240 220/380 110/190 240/415 347/600 115/200 110/220 127/220  $\Box$ 254/440 115/230 120/208 139/240 120/240 127/220 115/230 120/240 П 120/240 100/200 240/416 254/440 110/220 220/380 227/480 **Generator Set Options** Generator Set Control Panel Engine 120/240 Volt, 1000 watt coolant heaters Control anti-condensation heater □ AC entrance box П **Batteries** CSA 282 compliance package 120/240 Volt, 150 watt lube oil heater. Detector 12 control 口 **Battery Charger** □ Electronic governor Export box packaging Emergency stop Engine gauges Main line circuit breaker **Cooling System** PowerCommand Network П Low battery voltage warning ☐ 125°F/50°C ambient cooling Low coolant level warning/shutdown Quite Site Stage I housing w/silencer □ Remote radiator cooling Quite Site Stage II housing w/silencer PowerCommand Control Remote annunicator panel Remote fault signal package Fuel System Spring isolators Remote speed adjust ☐ 70 gal.(265 liter) dual wall sub-base tank Weather protective enclosure with silencer 140 gal.(530 liter) dual wall sub-base tank 2 year prime power warranty\* 44 gal, (167 liter) in-skid fuel tank 2 year standby warranty  $\Box$ Ш 80 gal (300 liter) single wall sub-base fuel 5 year basic power warranty tank Alternator Exhaust System 105°C rise alternator Genset mounted muffler 125°C rise alternator Anti-condensation heater Slip on exhaust connection 

Heavy duty exhaust elbow

☐ PMG excitation

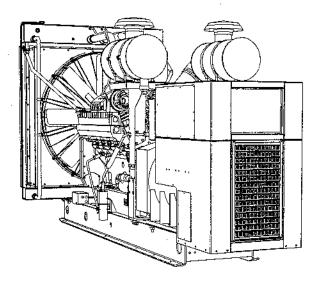
Extended stack (full single phase output)

<sup>\*</sup> Available in North America Only



## 750kW - 900kW 60 Hz 620kW - 800kW 50 Hz Diesel Fueled QST30 Series

		Stand kW (k	-	Prir kW (F	
Model	Data Sheet	60 Hz	50 Hz	60 Hz	50 Hz
DFHA	D-3004	<b>750</b> (938)	<b>620</b> (775)	<b>680</b> (850)	<b>560</b> (700)
DFHB	D-3005	800 (1000)	<b>700</b> (875)	725 (906)	<b>640</b> (800)
DFHC	D-3006	900 (1125)	<b>800</b> (1000)	818 (1023)	<b>725</b> (906)
5.110		000 (1120)	000 (1000)	0.0 (.020)	







The Prototype Test Support program verifies the performance integrity of the generator set design. Onan products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level systems.





The PowerCommand Control is listed Ut.-508 - Category NITW7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

#### Standard Genset Features

#### **CUMMINS® HEAVY-DUTY ENGINE**

- · Rugged 4-cycle industrial diesel engine
- · Electronic governing for optimal steady state and transient performance

#### ALTERNATOR

- · Low reactance 2/3 pitch
- · Class H insulation
- · Sustaining short circuit capability
- Low voltage distortion with non-linear loads

#### PERMANENT MAGNET GENERATOR (PMG)

- · Enhanced motor starting
- · Sustained short circuit current
- · Excitation system isolated from non-linear loads

#### **FULL LOAD PICK-UP**

 PowerCommand®Gensets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110

#### SINGLE-SOURCE RESPONSIBILITY

 Design, manufacture and test of all major set components and accessories by Onan Corporation and affiliated companies

#### SINGLE-SOURCE WARRANTY

- All generator set components and systems are covered by an express limited one-year warranty. See distributor/dealer for details
- · Optional extended warranty programs available

### **PowerCommand System Control Features**

#### INTEGRATED CONTROL SYSTEM

- · Microprocessor control system
- · Reliable and optimum genset performance
- · Integrated governor and voltage regulation system

#### ALARM AND STATUS MESSAGE DISPLAY

Information on all critical parameters of the genset.

#### AMPSENTRY™ PROTECTION

 Power management system that guards the electrical integrity of the alternator and power system from the effects of overcurrent, over/under voltage, under frequency and overload conditions

#### **BATTERY MONITORING SYSTEM**

- . Battery load test each time the engine is started
- · Alarm for weak battery condition
- . Monitors the battery system for low and high voltage

#### AC OUTPUT METERING

- · RMS digital metering
- · Analog metering indication of operating trends

#### GENSET MONITORING

- · Monitors status of all engine and alternator functions
- · Digitally displays status of all engine and alternator functions
- Monitors and detects engine sender failures

#### **UL508 LISTED CONTROL PANEL**

- Single-membrane panel and gasketed enclosure
- RFI/EMI and surge tested and approved

#### SMART STARTING CONTROL SYSTEM

 Multi-functional digital control system integrates fuel ramping and field excitation to minimize frequency and voltage overshoot and limit black smoke

#### OPTIONAL POWERCOMMAND DIGITAL PARALLELING CONTROL

 The PowerCommand Control can be equipped to provide digital paralleling controls for synchronizing and load sharing on-set.

#### Generator Set Specifications Voltage Regulation, no load to Full load: ±0.5% **Random Voltage Variation:** ±0.5% Frequency Regulation: Isochronous Random Frequency Variation: ±0.25% Radio Frequency Interference: IEC 801.2, Level 4 Electrostatic Discharge IEC 801.3, Level 3 Radiated Susceptibility IEC 801.4, Level 4 Electrical Fast Transients IEC 801.5, Level 5 Voltage Surge Immunity MIL STD 461C, Part 9 Radiated Emissions(EMI) **Engine Specifications** Design: 4 cycle, water-cooled Bore: 5.51"(140mm) Stroke 6.50"(165mm) Displacement: 1860 cubic inches (30 liters) Cylinder Block: Cranking Current: 1280 amps at ambient temperature of 32F (0°C) **Battery Charging Alternator:** 35 amps Starting Voltage: 24 volt, negative ground Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff Fuel System: Air Cleaner Type: Dry element with restriction indicator Lube Oil Filter Type(s): Four spin-on, full flow; two by-pass oil filters Cooling System: 104°F (40°C) ambient radiator, standard Alternator Specifications Brushless, 4 pole, drip proof revolving field Design: Stator: 2/3 pitch Rotor: Direct coupled by flexible disc Insulation System: Class H per NEMA MG1-1.65 Temperature Rise: 125° C Standby **Exciter Type:** PMG (Permanent Magnet Generator) **Phase Rotation:** A (U), B (V), C (W) **Alternator Cooling:** Direct drive centrifugal blower **AC Waveform Total Harmonic Distortion:** <5% total no load to full linear load <3% for any single harmonic Telephone Influence Factor(TIF): <50 per NEMA MG1-22.43 Telephone Harmonic Factor (THF): Voltage Selections 60Hz, 3-Phase, Reconnectable 60Hz, 3-Phase, 50Hz, 3-Phase, Non-Reconnectable Reconnectable 110/190 220/380 110/190 120/208 240/416 120/208 • 139/240 277/480 127/220 -220/380 347/600 220/380 П 240/416 230/400 277/480 240/415 Note: Some voltages may not be available on all models. **Generator Set Options** Engine Control Panel Miscellaneous ☐ 208/240/480v, 4300 watt coolant heaters □ Control anti-condensation heater □ AC entrance box ☐ 208/240/480v, 5600 watt coolant heaters Exhaust Pyrometer Batteries Battery Charger Fuel/water separator Ground fault indication П ☐ Heavy-duty air cleaner w/service indicator Paralleling configuration Export box packaging Paralleling upgrade configuration Main line circuit breaker Cooling System Remote fault signal package PowerCommand Network

\* Available in North America Only

□ Remote annunciator panel

2 year standby warranty

5 year basic power warranty

2 year prime power warranty\*

□ 10 year major components warranty

Spring isolators

☐ High Ambient 122°F(50°C) radiator

Heat exchanger cooling

☐ Remote radiator cooling

☐ 105°C rise alternator

□ 80°C rise alternator
 □ Anti-condensation heater

Alternator

☐ Run relay package

Exhaust packages

□ Critical grade exhaust silencer

Industrial grade exhaust silencer

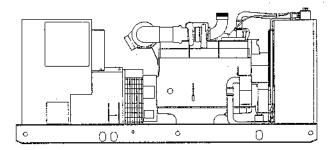
Residential grade exhaust silencer

**Exhaust System** 



## 275kW - 400kW 60Hz 250kW - 310kW 50Hz Diesel Fueled NT855 Series

			nd <b>by</b> (kVA)		i <b>me</b> (kVA)
Model	Data Sheet	60 Hz	50 Hz	60 Hz	50 Hz
DFBF	D3009	275/344	250/313	250/313	227/284
DFCB	D3010	300/375	275/344	270/338	250/313
DFCC	D3011	350/438	310/388	315/394	282/353
DFCE	D3012	400/500			



# ISO 9HOL



The Prototype Test Support program verifies the performance integrity of the generator set design. Onan products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level 1 systems.





The PowerCommand Control is listed UL-508 - Category NIWT7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

#### Standard Genset Features

#### **CUMMINS® HEAVY-DUTY ENGINE**

- · Rugged 4-cycle industrial diesel engine
- · Excellent transient performance

#### **ALTERNATOR**

- Low reactance 2/3 pitch
- · Class H insulation
- · Exceptional short circuit capability
- · Low voltage distortion with non-linear loads

#### PERMANENT MAGNET GENERATOR (PMG)

- · Enhanced motor starting
- · Sustained short circuit current
- · Excitation system isolated from non-linear loads

#### **FULL LOAD PICK-UP**

 PowerCommand™ Gensets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110

#### SINGLE-SOURCE RESPONSIBILITY

 Design, manufacture and test of all major set components and accessories by Onan Corporation and affiliated companies

#### SINGLE-SOURCE WARRANTY

- All generator set components and systems are covered by an express limited one-year warranty
- · Optional extended warranty programs available

## **PowerCommand System Control Features**

#### INTEGRATED CONTROL SYSTEM

- Microprocessor control system
- · Reliable and optimum genset performance
- · Integrated governor and voltage regulation system

#### ALARM AND STATUS MESSAGE DISPLAY

· Information on all critical parameters of the genset.

#### AMPSENTRY™ PROTECTION

 Power management system that guards the electrical integrity of the alternator and power system from the effects of overcurrent, over/under voltage, under frequency and overload conditions

#### BATTERY MONITORING SYSTEM

- Battery load test each time the engine is started
- · Alarm for weak battery condition
- · Monitors the battery system for low and high voltage

#### AC OUTPUT METERING

- True RMS digital metering
- Analog metering indication of operating trends

#### GENSET MONITORING

- Monitors status of all engine and alternator functions
- Digitally displays status of all engine and alternator functions
- Monitors and detects engine sender failures

#### **UL508 LISTED CONTROL PANEL**

- · Single-membrane panel and gasketed enclosure
- RFI/EMI and surge tested and approved

#### SMART STARTING CONTROL SYSTEM

 Muiti-functional digital control system integrates fuel ramping and field excitation to minimize frequency and voltage overshoot and limit black smoke

#### OPTIONAL POWERCOMMAND DIGITAL PARALLELING CONTROL

 The PowerCommand Control can be equipped to provide digital paralleling controls for synchronizing and load sharing on-set.

#### **Generator Set Specifications** Voltage Regulation, no load to Full load: ±0.5% Random Voltage Variation: ±0.5% Frequency Regulation: Isochronous Random Frequency Variation: ±0.25% Radio Frequency Interference: IEC 801.2, Level 4 Electrostatic Discharge IEC 801.3, Level 3 Radiated Susceptibility (EC 801.4, Level 4 Electrical Fast Transients IEC 801.5, Level 5 Voltage Surge Immunity MIL STD 461C, Part 9 Radiated Emissions(EMI) 60 Hz: 93 dBA 50 Hz: 91 dBa **Engine Specifications** Design: 4 cycle, water-cooled Bore: 5.0" (140mm) 6.0" (152 mm) Stroke Displacement: 855 cubic inches (14 liters) Cylinder Block: Cast iron Cranking Current: 565 amps at ambient temperature of 32°F (0°C) **Battery Charging Alternator:** 45 amps Starting Voltage: 24 volt, negative ground Fuel System: Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff. Dry element with restriction indicator Air Cleaner Type: Lube Oil Filter Type(s): single spin-on, two full flow/bypass Cooling System: 122°F (50°C) ambient radiator Alternator Specifications Design: Brushless, 4 pole, drip proof revolving field Stator: 2/3 pitch Rotor: Direct coupled by flexible disc Insulation System: Class H per NEMA MG1-1.65 Temperature Rise: 125° C @ Standby, 105°C @ Prime Regulator: Integral in PowerCommand Control system **Exciter Type:** Permanent Magnet Generator (PGM) Phase Rotation: A (U), B (V), C (W) Direct drive centrifugal blower Alternator Cooling: AC Waveform Total Harmonic Distortion: <5% total no load to full linear load <3% for any single harmonic Telephone Influence Factor(TIF): <50 per NEMA MG1-22.43 Telephone Harmonic Factor (THF): <3 Voltage Selections 60Hz, 3-Phase, 60Hz, 1-Phase, 50Hz, 1-Phase. 60Hz, 3-Phase, 50Hz, 3-Phase, Reconnectable Non-Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable 120/208 □ 120/240 240/380 110/190 230/400 100/200 127/220 347/600 115/200 п 240/415 110/220 139/240 120/208 254/440 115/230 120/240 127/220 115/230 120/240 240/415 100/200 120/240 254/440 110/220 277/480 220/380 Note: Some voltages may not be available on all models. **Generator Set Options**

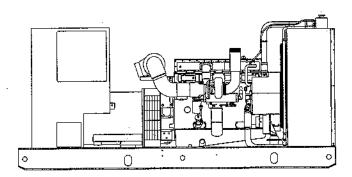
Engine	Control Panel	Miscellaneous
☐ Fuel/Water separator	<ul> <li>Control anti-condensation heater</li> </ul>	☐ AC entrance
Heavy duty air cleaner with safety element	☐ Exhaust Pyrometer	□ Batteries
☐ 208/240/480 Volt 2500W coolant heaters	☐ Ground fault indication	□ Battery Charger
☐ 75 Amp Battery Charge Alternator	☐ Remote fault signal package	☐ Export box packaging
	☐ Run relay package	☐ Isolation pads
Cooling System		Main line circuit breaker
☐ Heat exchanger cooling (except DFCE	Exhaust System	☐ Paralleling accessories
☐ Remote radiator cooling (except DFCE	<ul> <li>Critical grade exhaust silencer</li> </ul>	☐ PowerCommand Network
	☐ Exhaust packages	☐ Remote annunciator panel
Alternator	<ul> <li>Industrial grade exhaust silencer</li> </ul>	☐ Spring isolators
☐ Anti-condensation heater	<ul> <li>Residential grade exhaust silencer</li> </ul>	2 year prime power warranty
☐ 80°C rise alternator	-	☐ 2 year standby warranty
☐ 105°C rise alternator	Fuel System	☐ 5 year basic power warranty
	☐ 154 gallon (583 liter) sub-based tank	□ 10 year major components warranty
·	520 gallon (1968 liter) sub-based tank	, , ,
	27 gallon (103 liter) in-skid day task	

Available in North America Only



## 200kW - 250kW 60Hz **Diesel Fueled MII Series**

		Stan kW (	•	Pri kW (	me kVA)
Model	Data Sheet	60 Hz	50 Hz	60 Hz	50 Hz
DQAA	D3007	200/250		180/225	
DQAB	D3008	250/313		225/281	





The Prototype Test Support program verifies the performance integrity of the generator set design. Onan products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level 1 systems.





The PowerCommand Control is listed UL-508 - Category NIWT7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

#### Standard Genset Features

#### LOW EXHAUST EMISSIONS

Certified to United States Environmental Protection Agency Mobile off Highway standards

#### CUMMINS® HEAVY-DUTY ENGINE

- · Rugged 4-cycle industrial diesel engine
- Excellent transient performance

#### ALTERNATOR

- Low reactance 2/3 pitch
- Class H insulation
- Exceptional short circuit capability
- Low voltage distortion with non-linear loads

#### PERMANENT MAGNET GENERATOR (PMG)

- Enhanced motor starting
- Sustained short circuit current
- Excitation system isolated from non-linear loads

#### **FULL LOAD PICK-UP**

 PowerCommand™ Gensets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110

#### SINGLE-SOURCE RESPONSIBILITY

Design, manufacture and test of all major set components and accessories by Onan Corporation and affiliated companies

#### SINGLE-SOURCE WARRANTY

- All generator set components and systems are covered by an express limited one-year warranty
- Optional extended warranty programs available

## **PowerCommand System Control Features**

#### INTEGRATED CONTROL SYSTEM

- Microprocessor control system
- Reliable and optimum genset performance
- Integrated governor and voltage regulation system

#### ALARM AND STATUS MESSAGE DISPLAY

Information on all critical parameters of the genset.

#### AMPSENTRY™ PROTECTION

· Power management system that guards the electrical integrity of the alternator and power system from the effects of overcurrent, over/under voltage, under frequency and overload conditions

#### BATTERY MONITORING SYSTEM

- Battery load test each time the engine is started
- · Alarm for weak battery condition
- Monitors the battery system for low and high voltage

#### AC OUTPUT METERING

- True RMS digital metering
- Analog metering indication of operating trends

#### GENSET MÖNITORING

- · Monitors status of all engine and alternator functions
- Digitally displays status of all engine and alternator functions
- Monitors and detects engine sender failures

#### **UL508 LISTED CONTROL PANEL**

- Single-membrane panel and gasketed enclosure
- RFI/EMI and surge tested and approved

#### SMART STARTING CONTROL SYSTEM

 Multi-functional digital control system integrates fuel ramping and field. excitation to minimize frequency and voltage overshoot and limit black

#### OPTIONAL POWERCOMMAND DIGITAL PARALLELING CONTROL

 The PowerCommand Control can be equipped to provide digital paralleling controls for synchronizing and load sharing on-set.

Design:   Brushless, 4 pole, drip proof revolving field   2/3 pitch   2/3 pitch   Direct coupled by flexible disc   Insulation System:   Class H per NEMA MG1-1.65   125° C Standby, 105°C @ Prime   Permanent Magnet Generator (PMG)   Phase Rotation:   A (U), B (V), C (W)   Alternator Cooling:   Direct drive centrifugal blower   AC Waveform Total Harmonic Distortion:   45% total no load to full linear load   43% for any single harmonic   45% total no load to full linear load   43% for any single harmonic   450 per NEMA MG1-22.43   43   43   44   44   44   44   44	Voltage Regulation, no load to Full load:	±0.5%		
Random Frequency Variation:	Random Voltage Variation:	±0.5%		
Random Frequency Variation:	<del>-</del>	Isochronous		
EC 801.2   Level 4 Electrostatic Discharge   EC 801.2   Level 4 Electrostatic Discharge   EC 801.3   Level 4 Electrical Fast Translents   EC 801.4   Level 4 Electrical Fast Translents   EC 801.5   Level 5 Voltage Surge Immunity   MIL STD 461C, Part 9 Radiated Emissions(EMI)				
IEC 801.3, Level 3 Raditated Susceptibility   IEC 801.5, Level 5 Voltage Surge Immunity   IEC 801.5, Level 5 Voltage Surge Immunity   MIL STD 461C, Part 9 Radiated Emissions(EMi)      Engine Specifications			lectrostatic Discharge	
IEC 801.4, Level 4 Electrical Fast Transients   IEC 801.5, Level 5 Voltage Surge Immunity   MIL STD 461C, Part 9 Radiated Emissions(EMI)	radio i reducito; interiorente.			
IEC 801.5, Level 5 Voltage Surge Immunity   MilL STD 461C, Part 9 Radiated Emissions(EMi)				
Design:		IEC 801.5, Level 5 V	oltage Surge Immunity	
Design:				
Design:	Engine Specifications			
Bore		4 cycle, water-cooled	<u> </u>	
Stroke				
Displacement:	Stroke			
Cylinder Block:   Cast iron	Displacement:		i.8 liters)	
Cranking Current: Battery Charging Alternator: Starting Voltage: Fuel System: Air Cleaner Type: Lube Oil Filter Type(s): Cooling System:  Design: Stator: Rotor: Insulation System: Class H per NEMA MG1-1.65  Temperature Rise: Exciter Type: Phase Rotation: Alternator Cooling: AC Waveform Total Harmonic Distortion: Telephone Influence Factor (THF): Telephone Harmonic Factor (THF):  Cooling System  550 amps at ambient temperature of 32°F (0°C) 45 amps 24 volt, negative ground Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff. Dry element with restriction indicator  Single spin-on, two full flow/bypass 122°F (50°C) ambient radiator  Brushless, 4 pole, drip proof revolving field 2/3 pitch Direct coupled by flexible disc Class H per NEMA MG1-1.65  Class H per NEMA MG1-1.65  Temperature Rise: 125° C Standby, 105°C @ Prime Permanent Magnet Generator (PMG) A (U), B (V), C (W) Direct drive centrifugal blower 45% total no load to full linear load 43% for any single harmonic 45% total no load to full linear load 43% for any single harmonic 450 per NEMA MG1-22.43  Voltage Selections  Felephone Harmonic Factor (THF): 220/280  120/298 120/240				
Battery Charging Alternator:		550 amps at ambien	t temperature of 32°F (0°C)	
Starting Voltage: Fuel System: Air Cleaner Type: Lube Oil Filter Type(s): Cooling System:  Dry element with restriction inclicator Single spin-on, two full flow/bypass 122°F (50°C) ambient radiator  Alternator Specifications  Design: Stator: Rotor: Insulation System:  Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff.  Dry element with restriction inclicator Single spin-on, two full flow/bypass 122°F (50°C) ambient radiator  Alternator Specifications  Design: Stator: Rotor: Insulation System: Class H per NEMA MG1-1.65  Temperature Rise: 125° C Standby, 105°C @ Prime Exciter Type: Permanent Magnet Generator (PMG) A (U), B (V), C (W) Direct drive centrifugal blower 4C Waveform Total Harmonic Distortion: 4C Waveform Total Harmonic Distortion: 4S total no load to full linear load 3% for any single harmonic 450 per NEMA MG1-22.43  **Coltage Selections**  Voltage Selections  60Hz, 3-Phase, Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Reconnectable Reconnectab	Battery Charging Alternator:	45 amps	•	
Fuel System: Air Cleaner Type: Lube Oil Filter Type(s): Cooling System:  Design: Stator: Rotor: Insulation System:  Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff.  Design: Stator: Rotor: Insulation System:  Direct coupled by flexible disc Class H per NEMA MG1-1.65  Temperature Rise: Exciter Type: Permanent Magnet Generator (PMG) Alternator Cooling: AC Waveform Total Harmonic Distortion:  Telephone Influence Factor (TIF): Telephone Harmonic Factor (THF):  Voltage Selections  Direct injection, number 2 diesel fuel; fuel filters; automatic electric fuel shutoff. Dry element with restriction indicator  Single spin-on, two full flow/bypass 122°F (50°C) ambient radiator  Brushless, 4 pole, drip proof revolving field 2/3 pitch Direct coupled by flexible disc Class H per NEMA MG1-1.65  Temperature Rise: 125° C Standby, 105°C @ Prime Permanent Magnet Generator (PMG) A (U), B (V), C (W) Direct coupled by flexible disc Class H per NEMA MG1-1.25° C Standby, 105°C @ Prime Permanent Magnet Generator (PMG) A (U), B (V), C (W) Direct coupled by flexible disc Class H per NEMA MG1-1.25° C Standby, 105°C @ Prime Permanent Magnet Generator (PMG) A (U), B (V), C (W) State Type: Permanent Magnet Generator (PMG) A (U), B (V), C (W) A (U), B (V), C (		24 volt, negative gro	und	
Air Cleaner Type:   Dry element with restriction indicator				electric fuel shutoff.
Alternator Specifications				
Alternator Specifications  Design: Brushless, 4 pole, drip proof revolving field 2/3 pitch Rotor: Direct coupled by flexible disc Insulation System: Class H per NEMA MG1-1.65 Temperature Rise: 125° C Standby, 105°C @ Prime Exciter Type: Permanent Magnet Generator (PMG) Alternator Cooling: A (U), B (V), C (W) Direct drive centrifugal blower AC Waveform Total Harmonic Distortion: 5% total no load to full linear load 3% for any single harmonic Telephone Influence Factor (THF): <5% total no load to full linear load 3% for any single harmonic 50 per NEMA MG1-22.43  **Cooling Cooling Cooli	Lube Oil Filter Type(s):	Single spin-on, two fe	ull flow/bypass	
Design:   Brushless, 4 pole, drip proof revolving field   2/3 pitch   2/3 pitch   Direct coupled by flexible disc   Insulation System:   Class H per NEMA MG1-1.65   125° C Standby, 105°C @ Prime   Permanent Magnet Generator (PMG)   Phase Rotation:   A (U), B (V), C (W)   Alternator Cooling:   Direct drive centrifugal blower   AC Waveform Total Harmonic Distortion:   45% total no load to full linear load   43% for any single harmonic   45% total no load to full linear load   43% for any single harmonic   450 per NEMA MG1-22.43   43   43   44   44   44   44   44	Cooling System:	122°F (50°C) ambier	nt radiator	
Stator:	Alternator Specifications			
Rotor:	Design:		ip proof revolving field	
Insulation System: Class H per NEMA MG1-1.65 Temperature Rise: 125° C Standby, 105° C @ Prime Exciter Type: Permanent Magnet Generator (PMG) Phase Rotation: A (U), B (V), C (W) Alternator Cooling: Direct drive centrifugal blower AC Waveform Total Harmonic Distortion: <5% total no load to full linear load <3% for any single harmonic Telephone Influence Factor (TIF): <50 per NEMA MG1-22.43 Telephone Harmonic Factor (THF): <3  Voltage Selections  FOHz, 3-Phase, Reconnectable Non-Reconnectable Non-Reconnectable Reconnectable Reconnectable Non-Reconnectable Non-Reconnectable Reconnectable Non-Reconnectable Non-Reconnectable Non-Reconnectable S47/600  120/208	Stator:			
Temperature Rise:         125° C Standby, 105°C @ Prime           Exciter Type:         Permanent Magnet Generator (PMG)           Phase Rotation:         A (U), B (V), C (W)           Alternator Cooling:         Direct drive centrifugal blower           AC Waveform Total Harmonic Distortion:         <5% total no load to full linear load				
Exciter Type: Permanent Magnet Generator (PMG) Phase Rotation: A (U), B (V), C (W)  Alternator Cooling: Direct drive centrifugal blower  AC Waveform Total Harmonic Distortion: <5% total no load to full linear load  <3% for any single harmonic  Telephone Influence Factor (TIF): <50 per NEMA MG1-22.43  Telephone Harmonic Factor (THF): <3  Voltage Selections  60Hz, 3-Phase, 60Hz, 1-Phase, 60Hz, 3-Phase, Non-Reconnectable Non-Reconnectable Reconnectable Reconnectable Non-Reconnectable Non-Reconnectable Non-Reconnectable Satisfactor (PMG)  120/208				
Phase Rotation: Alternator Cooling: AC Waveform Total Harmonic Distortion:  Telephone Influence Factor(TIF): Telephone Harmonic Factor (THF):  Voltage Selections  60Hz, 3-Phase, Reconnectable Non-Reconnectable 120/220 12127/220 1239/240 120/240 2347/600	Temperature Rise:			·
Alternator Cooling: AC Waveform Total Harmonic Distortion:  Telephone Influence Factor(TiF): Telephone Harmonic Factor (THF):  **Oltage Selections**  **Oltage Selections**  **Oltage Selections**  **On-Reconnectable**  **Non-Reconnectable**  **Non-Reconnectable**  **Direct drive centrifugal blower  **<5% total no load to full linear load  **<3% for any single harmonic  **50 per NEMA MG1-22.43  **Solution of the properties o			Generator (PMG)	
AC Waveform Total Harmonic Distortion:	Phase Rotation:			
Color   Colo				•
Telephone Influence Factor (TIF):         <50 per NEMA MG1-22.43	AC Waveform Total Harmonic Distortion:			
Telephone Harmonic Factor (THF):         <3           Voltage Selections           60Hz, 3-Phase, Reconnectable         60Hz, 1-Phase, Non-Reconnectable         50Hz, 1-Phase, SoHz, 1-Phase, Non-Reconnectable         Non-Reconnect				
Voltage Selections           60Hz, 3-Phase, Reconnectable         60Hz, 1-Phase, Non-Reconnectable         60Hz, 3-Phase, Non-Reconnectable         50Hz, 3-Phase, Reconnectable         50Hz, 1-Phase, Non-Reconnectable           □ 120/208         □ 120/240         □ 220/280         □ 347/600         □ 347/600           □ 139/240         □ 120/240         □ 347/600         □ 347/600         □ 347/600           □ 240/415         □ 254/440         □ 254/440         □ 347/600         □ 347/600			-22.43	
60Hz, 3-Phase, Reconnectable Non-Reconnectable Non-Reconnectable Seconnectable Seconn	Telephone Harmonic Factor (THF):	<3		* * * * * * * * * * * * * * * * * * *
Reconnectable         Non-Reconnectable         Reconnectable         Non-Reconnectable           □ 120/208         □ 120/240         □ 220/280         □ 347/600           □ 139/240         □ 120/240         □ 20/240         □ 20/240           □ 120/240         □ 240/415         □ 254/440         □ 254/440				
□ 120/208 □ 120/240 □ 220/280 □ 347/600 □ 347/600 □ 139/240 □ 120/240 □ 120/240 □ 240/415 □ 254/440 □ 120/240 □ 120				
□ 127/220 □ 347/600 □ 139/240 □ 120/240 □ 240/415 □ 254/440 □ □ 1254/			Reconnectable	Non-Reconnectable
☐ 139/240 ☐ 120/240 ☐ 240/415 ☐ 254/440			•	
□ 120/240 □ 240/415 □ 254/440	+ 1 - +277220 - 1	L 347/600		
□ 240/415 □ 254/440		1	·	
□ 254/440	EJ 139/240			I
	☐ 139/240 ☐ 120/240			
□ 277/480	☐ 139/240 ☐ 120/240 ☐ 240/415 .			

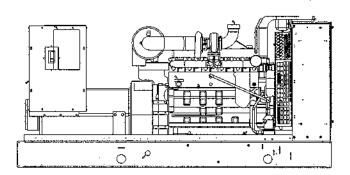
Engine	Control Panel	Miscellaneous
☐ Fuel/Water separator	<ul> <li>Control anti-condensation heater</li> </ul>	□ AC entrance box
☐ Heavy duty air cleaner with safety element	☐ Exhaust Pyrometer	□ Batteries
□ 208/240/480 Volt 2500 W coolant heaters	☐ Ground fault indication	□ Battery Charger
	☐ Remote fault signal package	☐ Export box packaging
Cooling System	☐ Run relay package	☐ Isolation pads
☐ Heat exchanger cooling		☐ Main line circuit breaker
□ Remote radiator cooling	Exhaust System	□ Paralleling accessories
	□ Critical grade exhaust silencer	□ PowerCommand Network
Alternator	□ Exhaust packages	☐ Remote annunciator panel
☐ Anti-condensation heater	☐ Industrial grade exhaust silencer	☐ Spring isolators
☐ 80°C rise alternator	☐ Residential grade exhaust silencer	<ul> <li>2 year prime power warranty*</li> </ul>
☐ 105°C rise alternator		□ 2 year standby warranty
	Fuel System	□ 5 year basic power warranty
	☐ 138 gallon (522 liter) sub-based tank	☐ 10 year major components warranty*
	484 gailon (1832 liter) sub-based tank	
	☐ 19 gallon (72 liter) in-skid day task	

\* Available in North America Only



125kW - 200kW 60 Hz 110kW - 176kW 50 Hz Diesel Fueled 6C Series

Model	Data Sheet	EPA-MOH		ndby (kVA)	1	ime (kVA)
			60 Hz	50 Hz	60 Hz	50 Hz
DGEA	D-3018	Standard	<b>125</b> (156)	<b>110</b> (138)	113 (141)	100 (125)
DGFA	D-3019	Optional	<b>150</b> (188)	<b>140</b> (175)	<b>135</b> (169)	<b>125</b> (156)
DGFB	D-3020	Optional	<b>175</b> (219)	<b>150</b> (188)	160 (200)	<b>135</b> (169)
DGFC	D-3021	Not Available	<b>200</b> (250)	176 (220)	180 (225)	<b>160</b> (200)





The Prototype Test Support program verifies the performance integrity of the generator set design. Onen products bearing the PTS symbol meet the prototype test requirements of NFPA110 for Level 1 systems.





The PowerCommand Control is listed UL-508 - Category NITW7 for U.S. and Canadian usage.



All models are CSA certified to product class 4215-01.

## Standard Genset Features

#### **CUMMINS® HEAVY-DUTY ENGINE**

- · Rugged 4-cycle industrial diesel engine
- Excellent transient performance

#### **ALTERNATOR**

- Low reactance 2/3 pitch
- Class H insulation
- · Exceptional short circuit capability
- · Low waveform distortion with non-linear loads
- · Excellent motor starting capabilities

#### **ELECTRONIC VOLTAGE REGULATOR**

- Precise regulation
- Underfrequency compensation
- Torque-matched system provides fast recovery from transient load changes

#### **FULL LOAD PICK-UP**

 Gensets accept 100% of full nameplate standby rating in one step, in compliance with NFPA110, Paragraph 5-13.2.6.

#### COOLING SYSTEM

High ambient 122° F (50° C) system optional, 104°F (40°C) system standard

#### SKID BASE

Supports engine, alternator and radiator with integral vibration isolation

#### **E-COAT FINISH**

 Dual electro-deposition coating system provides high resistance to scratching, corrosion and paint fading

#### STANDARD CONTROL SYSTEM

- · Run-Stop-Remote Switch
- · Remote Starting, 12 Volt, 2 Wire
- Safety Shutdowns

#### **OPTIONAL CONTROL SYSTEMS**

- Detector 12 Control NFPA 110 Compliant
- · PowerCommand Advanced Digital Control

#### SINGLE-SOURCE RESPONSIBILITY

 Design, manufacture and test of all major set components and accessories by Onan Corporation and affiliated companies.

#### SINGLE-SOURCE WARRANTY

- All generator set components and systems are covered by an express written limited one-year warranty
- Optional extended warranty programs available

	Specifications					
	n, no load to Full load:		±1.0%			
Random Voltage			±1.0%			
Frequency Regula Random Frequence		•	5.0%			
Radio Frequency			±0.5% Optional PMG ev	ritation operates i	n compliance with	BS800 and VDE level G and N.
nadio i requency	menerales.					MIL-STD- 461 and VDE level K
Engine Specif	fications					
Design:			4 cycle, water-co	oled		
Bore:	_		4.49" (114mm)			
Stroke			5.32" (135 mm)	(Q 2 litera)		
Displacement: Cylinder Block:			504 cubic inches Cast iron	(o.o mers)		
Cranking Current	:		460 amps at amb	oient temperature	of 32F (0°C)	
Battery Charging			37 amps		(,	
Starting Voltage:			12 volt, negative			
Fuel System:					uel; fuel filters; w	ater separator; automatic
Air Clasner Type:			electric fuel shute Dry element with		tor	•
Air Cleaner Type: Lube Oil Filter Type			2 stage single sp			unase
Cooling System:	pc(0).		104°F (40°C) am		71 1011 110W WILL D	уразз
Alternator Ca	adfications		• ,			
Alternator Spe Design:	COMCANONS		Bruchlage 1900	DDM (60 U=) 45	00 BBM /50 U>	4 pole, drip proof revoluing field
Design: Stator:			2/3 pitch	הרועו (סט מצ), 15	υν πει <b>κι (3U HZ)</b> ,	4 pole, drip proof revolving field
Rotor:			Direct coupled by	/ flexible discs		
Insulation System	1:		Class H per NEM			
Temperature Rise	<b>:</b>		150° C Standby			
Exciter Type:			Shunt			
Phase Rotation: Alternator Cooling			A (U), B (V), C (V Direct drive centr			
	y. al Harmonic Distortion:		<5% total no load	4	d d	
			<3% for any sing		•	·
Telephone Influer			<50 per NEMA N			
Telephone Harmo	nic Factor (THF):		<3			
Voltage Selec	tions					
60Hz, 3-Phase, Reconnectable	60Hz, 1-Phase, Non-Reconnectable		, 3-Phase, econnectable	1	3-Phase, nectable	50Hz, 1-Phase, Non-Reconnectable
□ 120/208	□ 120/240	□ 220/380		110/190	□ 230/400	□ 100/200
□ 127/220		□ 347/600		□ 115/220	240/415	□ 110/220 ·
□ 139/240				120/208	254/440	□ 115/230
□ 120/240 □ 240/416				□ 127/220		
∠40/4 ib :				100/000	D 115/230	120/240
	•			☐ 100/200 ☐ 110/220	☐ 115/230 ☐ 120/240	120/240
☐ 254/440 ☐ 227/480				□ 100/200 □ 110/220 □ 220/380		120/240
☐ 254/440 ☐ 227/480	t Ontions			□ 110/220		120/240
☐ 254/440 ☐ 227/480 Generator Se	t Options	Contro	i Panel	□ 110/220	□ 120/240	
☐ 254/440 ☐ 227/480 Generator Set	t <b>Options</b>	Contro	I Panel ntrol anti-condensa	□ 110/220 □ 220/380		
☐ 254/440 ☐ 227/480 Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1	1500 watt coolant heaters 150 watt lube oil heater	□ Co □ CS	ntrol anti-condensa A 282 compliance	110/220 220/380	Generator Set  AC entranc  Batteries	be box
☐ 254/440 ☐ 227/480 Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1 ☐ Electronic gove	1500 watt coolant heaters 150 watt lube oil heater ernor	□ Co □ CS □ Đer	ntrol anti-condensa A 282 compliance tector 12 control	110/220 220/380	Generator Set  AC entranc  Batteries  Battery Ch	te box arger
☐ 254/440 ☐ 227/480 Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of	1500 watt coolant heaters 150 watt lube oil heater	□ Col □ CS □ Det □ Em	ntrol anti-condensa A 282 compliance tector 12 control lergency stop	110/220 220/380	Generator Set  AC entranc  Batteries  Battery Ch  Export box	ce box arger packaging
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, ☐ 120/240 Volt, ☐ Electronic gov ☐ EPA Mobile of certification	1500 watt coolant heaters 150 watt lube oil heater ernor	☐ Col ☐ CS ☐ Der ☐ Em	ntrol anti-condensa A 282 compliance tector 12 control lergency stop gine gauges	ation heater	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of	ce box arger packaging ircuit breaker
☐ 254/440 ☐ 227/480 Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission	☐ Col ☐ CS ☐ Det ☐ Em ☐ Enç	ntrol anti-condensa A 282 compliance tector 12 control lergency stop	ation heater package	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of PowerCom	ce box arger packaging
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, ☐ 120/240 Volt, ☐ Electronic gov ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission nbient cooling	Co	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges v battery voltage w v coolant level war werCommand Con	ation heater package	Generator Set  AC entrance Batteries Battery Ch Export box Main line of PowerCom Quite Site Quite Site	arger packaging ircuit breaker mand Network Stage I housing w/silencer Stage II housing w/silencer
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, ☐ Electronic gov ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission nbient cooling or cooling	Co	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges v battery voltage w v coolant level war werCommand Con mote fault signal p	ation heater package	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of  PowerCorr  Quite Site  Quite Site  Remote an	arger packaging ircuit breaker mand Network Stage I housing w/silencer Stage II housing w/silencer
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, ☐ Electronic gov ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lift	(500 watt coolant heaters (50 watt lube oil heater ernor I highway exhaust emission nbient cooling or cooling eer) dual wall sub-base tank	Co	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges v battery voltage w v coolant level war werCommand Con	ation heater package	Generator Set	arger I packaging I packaging I packaging I packaging I packer I panand Network Stage I housing w/silencer Stage II housing w/silencer Inunicator panel I ators
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lin ☐ 173 gal.(655 lin)	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission abient cooling or cooling ter) dual wall sub-base tank ter) dual wall sub-base tank	Co	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges v battery voltage w v coolant level war werCommand Con mote fault signal p	ation heater package	Generator Set  AC entranc Batteries Battery Ch Export box Main line of Ouite Site Quite Site Remote an Spring isol Weather p	arger I packaging I packaging I packaging I packaging I packaging I packer I panad Network Stage I housing w/silencer Stage II housing w/silencer Inunicator panel ators rotective enclosure with silencer
☐ 254/440 ☐ 227/480  Generator Set Engine ☐ 120/240 Volt, 1 ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lift ☐ 173 gal.(655 lift ☐ 336 gal. (1271	1500 watt coolant heaters 150 watt lube oil heater ernor i highway exhaust emission abient cooling or cooling ter) dual wall sub-base tank liter) dual wall sub-base tank	Co	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges v battery voltage w v coolant level war werCommand Con mote fault signal p	ation heater package	Generator Set  AC entranc Batteries Battery Ch Export box Main line of Quite Site Quite Site Quite Site Remote an Spring isol Weather p	arger I packaging I packaging I packaging I packaging I packer I panand Network Stage I housing w/silencer Stage II housing w/silencer Inunicator panel I ators
☐ 254/440 ☐ 227/480  Generator Set  Engine ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lift) ☐ 173 gal.(655 lift) ☐ 336 gal. (1271 ☐ 125 gal. (473 lift)	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission abient cooling or cooling ter) dual wall sub-base tank ter) dual wall sub-base tank	Co CS Det Em Co Lov Pot Rei	ntrol anti-condensa A 282 compliance tector 12 control lergency stop gine gauges w battery voltage w w coolant level war werCommand Con mote fault signal p mote speed adjust	ation heater package	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of  Quite Site  Quite Site  Remote an  Spring isol  Weather p.  2 year prin  2 year star	arger - packaging
☐ 254/440 ☐ 227/480  Generator Set  Engine ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification  Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lift ☐ 173 gal.(655 lift) ☐ 336 gal. (1271 ☐ 125 gal. (473 lift)  Alternator	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission abient cooling or cooling ter) dual wall sub-base tank liter) dual wall sub-base tank iter) single wall sub-base tank	Co CS Det Em Co	ntrol anti-condensa A 282 compliance tector 12 control lergency stop gine gauges w battery voltage w w coolant level war werCommand Con mote fault signal p mote speed adjust	ation heater package	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of  Quite Site  Quite Site  Remote an  Spring isol  Weather p.  2 year prin  2 year star	arger packaging ircuit breaker mand Network Stage I housing w/silencer Stage II housing w/silencer inunicator panel ators rotective enclosure with silencer ne power warranty*
☐ 254/440 ☐ 227/480  Generator Set  Engine ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification  Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal.(413 lift ☐ 173 gal.(655 lift) ☐ 336 gal. (1271 ☐ 125 gal. (473 lift)  Alternator ☐ 105°C rise alte	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission abient cooling or cooling eer) dual wall sub-base tank eer) dual wall sub-base tank liter) dual wall sub-base tank iter) single wall sub-base tank	Co CS Det Em Lov Lov Red Red Exhaus	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges w battery voltage w w coolant level war werCommand Con mote fault signal p mote speed adjust	ation heater package  varning ming/shutdown trol ackage	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of  Quite Site  Quite Site  Remote an  Spring isol  Weather p.  2 year prin  2 year star	arger packaging ircuit breaker mand Network Stage I housing w/silencer Stage II housing w/silencer inunicator panel ators rotective enclosure with silencer ne power warranty*
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☐ 254/440 ☐ 227/480  Generator Set  Engine ☐ 120/240 Volt, 1 ☐ Electronic gove ☐ EPA Mobile of certification  Cooling System ☐ 125°F/50°C an ☐ Remote radiate Fuel System ☐ 109 gal. (413 lift ☐ 173 gal. (655 lift ☐ 336 gal. (1271 lift ☐ 125 gal. (473 lift) ☐ 125 gal. (473 lift) ☐ 125°C rise alte ☐ Anti-condensat	1500 watt coolant heaters 150 watt lube oil heater ernor I highway exhaust emission abient cooling or cooling eer) dual wall sub-base tank eer) dual wall sub-base tank liter) dual wall sub-base tank iter) single wall sub-base tank ernator	Co CS Det Em Lov Lov Rei Rei Exhaus	ntrol anti-condensa A 282 comptiance tector 12 control tergency stop gine gauges w battery voltage w w coolant level war werCommand Con mote fault signal p mote speed adjust	ation heater package  varning ming/shutdown trol ackage	Generator Set  AC entranc  Batteries  Battery Ch  Export box  Main line of  Quite Site  Quite Site  Remote an  Spring isol  Weather p.  2 year prin  2 year star	arger packaging ircuit breaker mand Network Stage I housing w/silencer Stage II housing w/silencer inunicator panel ators rotective enclosure with silencer ne power warranty*

<sup>\*</sup> Available in North America Only